Report to the Legislature

2ESSB 5034, Section 615 (14) – (a)(i), (iv)

Early Childhood Program Participation and K-12 Outcomes

November 2013

Washington State Education Research & Data Center (ERDC)

Office of Financial Management, Forecasting Division

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Background

Section 615(14)-(a)(i), (iv) of the Washington State Operating Budget (2ESSB 5034) passed during the 2013 Legislative Session requires the Education Research and Data Center (ERDC) to use available data to report on early childhood program participation and K-12 outcomes.

> "The education research and data center must provide a report on early childhood program participation and K-12 outcomes to the house of representatives appropriations committee and the senate ways and means committee using available data by November 2013 for the school year ending in 2012 and again in March 2014 for the school year ending in 2013."

The ERDC was established by RCW 43.41.400 in the Washington state Office of Financial Management. ERDC conducts analyses of early learning, K-12, higher education, and workforce issues and provides data to policy makers, researchers, and state agencies to answer questions of interest to the P-20W community. The report specified above involves linking children identified in early learning programs to Washington public K-12 data. ERDC has been working with the Department of Early Learning (DEL) to document and assemble early childhood data to bring into the P-20W data warehouse and to ready it for cross-sector, longitudinal analysis.

The legislation broadly refers to early childhood program participation, which includes a complicated mix of program funding, eligibility for services, interventions or services, and program quality. Some programs are funded by the state or federal government and others are paid for privately. Some are licensed and others are exempt from licensing. Some are focused on kindergarten readiness and others provide child care subsidies with varying expectations of promoting early learning or school readiness. Medical and dental care or nutrition programs could also be included under early childhood programs. Children can participate in none, one, or many early childhood programs either simultaneously or over time.

Trying to construct a complete picture of a child's early experience and how it impacts their K-12 success is complicated. For the purpose of this report we will focus on the publicly-funded early learning programs administered by DEL. The state of Washington does not currently collect data on children in private child care or early learning settings. In this report we will cover the following:

- Brief overview of publicly-funded programs administered by DEL.
- Overview of DEL data available through ERDC.
- An exploratory analysis of DEL's Early Childhood Education and Assistance Program (ECEAP) data linked to the Office of Superintendent of Public Instruction (OSPI) Washington public K-12 data.

- A brief discussion of data quality and limitations.
- Overview of activities and projects involving early childhood data and ERDC.

Table 1 provides an overview of the publicly-funded early learning programs in Washington state that are administered or licensed by DEL or, in the case of Head Start, the federal government. Washington state only has data for children in publicly-funded early childhood programs.

Table 1: Overview of Publicly-Funded Early Childhood Programs

Publicly-Funded Early Childhood Programs	Characteristics of State- or Federal-Funded Programs		
	Ages Served	Approx. Annual Enrollment FY2013	Program Focus
Early Support for Infants and Toddlers (ESIT)	Birth to 3 yrs	5,814 (unique children)	Early support for infants and toddlers with developmental delays Administered by DEL http://del.wa.gov/development/esit/Default.aspx
Early Head Start (EHS)	Birth to 3 yrs	2,852 (funded slots)	Serves pregnant women, infants, and toddlers to promote school readiness for children in low-income families by providing comprehensive educational, health, nutritional, and social services. Administered by U.S. Department of Health and Human Services Administration for Children and Families
Head Start	3 to 5 yrs	10,908 (funded slots)	Serves children ages 3-5 and their families to promote school readiness for children in low-income families by providing comprehensive educational, health, nutritional, and social services. Administered by U.S. Department of Health and Human Services Administration for Children and Families
Early Childhood Education and Assistance Program (ECEAP)	3 to 5 yrs	8,391 (funded slots)	Serves our state's most vulnerable children and families and provides health, early childhood education and family support services. Administered by DEL http://www.del.wa.gov/publications/ECEAP/docs/ECEAP_components.pdf
Working Connections Child Care (WCCC) subsidy program	Birth through 12	77,362 (unique children)	Child care subsidies for low-income families who are working or meeting WorkFirst participation requirements. Administered by DEL www.del.wa.gov/care/help/connections.aspx
Seasonal Child Care	Birth through 12	3,772 (unique children)	Child care subsidies to eligible seasonally employed agricultural families to provide safe, licensed child care while parents work in agricultural settings. Administered by DEL http://www.del.wa.gov/care/help/seasonal.aspx
Homeless Child Care	Birth through 12	642 (children)	Temporary child care services for homeless children. Administered by DEL http://www.del.wa.gov/care/help/homeless.aspx
Medicaid Treatment Child Care program	Children birth to 5	About 400 children	Provides assessment, diagnosis and comprehensive, age-appropriate medically necessary treatment for children at risk of abuse or neglect who may also be experiencing mental health and/or behavioral issues. Administered by DEL http://www.del.wa.gov/development/child/mtcc.aspx

Table 1 shows the number of children served by each program and the program focus. The clear differences between early learning and child care programs needs to be considered in thinking about the impact of early childhood programs on child outcomes.

Availability of Early Childhood Data at ERDC

ERDC was awarded an American Reinvestment and Recovery Act (ARRA) P-20W grant in July, 2010 to fund 7 projects[1]. This grant provided funds for DEL to enhance their data collection efforts and to work with ERDC to prepare their data for inclusion in ERDC's P-20W data warehouse. In addition to the grant activities, ERDC and DEL have been working together to meet increasing demands for early childhood program data within a P-20W context. Table 2 provides a status report of these efforts.

Table 2: Availability of DEL data at ERDC: children, early learning professionals, and providers - *Indicates that data at the child or student-level is available

Source	Data Description	Time Period	Data File	Currently Available for Reporting	Next Steps
Legacy Executive Management System (EMS)*	ECEAP child, enrollment, contractor and site information for 2000-2012	2000-2012	Received 5/4/2012	Yes	• Further examine utility of bringing in variables to P-20W data warehouse that were not collected consistently across years and are not being carried forward in ELMS.
Early Learning Management System (ELMS)*	ECEAP child, enrollment, contractor and site information starting in 2012.	2012-forward	Received 10/31/2013	No	• ERDC performs data profiling and identity matching prior to using for research and reporting and inclusion in P-20W data warehouse.
To be Determined*	Head Start child, enrollment, and provider information	To be Determined	To be Determined	No	• Ongoing work with DEL and Head Start organizations to share data.
Social Services Payment System (SSPS)*	Working Connections Childcare (WCCC) payments made by DSHS to providers	2007-forward	To be Determined	No	• ERDC perform data profiling and identity matching prior to using for research and reporting and inclusion in P-20W data warehouse.
Social Services Payment System (SSPS)*	Seasonal Childcare payments made by DSHS to providers	2007-forward	To be Determined	No	• ERDC perform data profiling and identity matching prior to using for research and reporting and inclusion in P-20W data warehouse.
Social Services Payment System (SSPS)	Listing of providers authorized for license exempt care	2007-forward	Received 10/31/2013	No	• ERDC perform data profiling and identity matching prior to use and bringing data into P20 DW.
Teaching Strategies GOLD*	Whole child assessment data for ECEAP children starting in 2012-13. (Same tool as used in the Washington Kindergarten Inventory of Developing Skills, or WaKIDS)	2012-2013	Received 11/30/2013	No	• Begin data readiness activities – documentation of data file.

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[1] Description of ERDC's ARRA P-20W grant projects - http://www.erdc.wa.gov/arraslds2009/default.asp

Table 2 Continued

Source	Data Description	Time Period	Data File	Currently Available for Reporting	Next Steps
Early Support for Infants and Toddlers (ESIT)*	Birth to age 3 - early intervention enrollment under IDEA Part C from 2007 forward.	2007-forward	Received 7/25/2013	No	• ERDC perform data profiling and identity matching prior to using for research and reporting and inclusion in P-20W data warehouse.
Managed Education and Registry Information Tool (MERIT)	Information on early learning teachers	1998 – forward	Received 10/31/2013	No	• ERDC perform identity matching and data profiling prior to use and bringing data into P20 DW.
Managed Education and Registry Information Tool (MERIT)	QRIS ratings for Early Achievers which includes licensed childcare, Head Start and ECEAP sites.	2012 - forward	Received 10/31/2013	No	• ERDC perform data profiling prior to use and bringing data into P20 DW.
FamLink	Licensed or certified child care providers. Includes subsidized and private pay.	Late 1980's - forward	Received 10/31/2013	No	• ERDC perform data profiling and linking to MERIT prior to use and bringing data into P20 DW.

The legislation directs ERDC to link available early childhood data to Washington public K-12 data. Currently, the early childhood data that are available and prepared for research and reporting activities at ERDC are from the legacy ECEAP data (program years 2000 – 2012).

The next section will demonstrate the results of linking DEL's ECEAP data with Washington Public K-12 data to answer longitudinal, cross-sector questions.

A Cross-Sector Longitudinal Analysis of ECEAP and K-12 Data

This section demonstrates how early childhood program data can be linked to Washington public K-12 data to address questions identified by education stakeholders. This type of descriptive analysis provides an opportunity to:

- Evaluate the quality, completeness, and utility of the data that ERDC receives to determine if it meets the needs of education stakeholders.
- Inform the content and structure of the P-20W data warehouse.
- Refine and document methodology and variable definitions.
- Identify additional questions and analyses using P-20W data.

This analysis is a "first look" at how ECEAP and K-12 data can be linked to study the experiences of ECEAP children in the Washington public K-12 system. ECEAP is a state-funded comprehensive program that provides preschool, health and family support services to prepare children for success in school and life.[2]

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[2] For a description of the ECEAP program - http://www.del.wa.gov/care/find-hs-eceap/

Research has shown that a high-quality preschool experience can have a tremendous impact on a child's learning and development and can contribute to reductions in grade level retention and special education.[3] Three key factors contribute to the extent that preschool benefits low-income children: program quality; the comprehensiveness of education, health and family services; and the dosage (the amount of time children and families participate). High-quality programs provide a combination of the following characteristics:

- Highly skilled teachers.

- Small class sizes and high adult-to-child ratios.

- Age-appropriate curricula and stimulating materials in a safe physical setting.

- A language-rich environment.

- Warm, responsive interactions between staff and children.

- High and consistent levels of child participation.[4]

This analysis includes all children who participated in ECEAP in the 2003-04 school year (2004 program year) regardless of their age or prior or subsequent participation in ECEAP. Children in this cohort may or may not have participated in ECEAP in the 2002-03 school year or the 2004-05 school year, depending on their age as of August 31, 2003.

The ECEAP children are followed through 3rd grade, which is a common approach by states integrating early childhood experiences into a P-20W framework[5].

Timeline for longitudinal analysis of the 2003-04 (2004 program year) ECEAP children:

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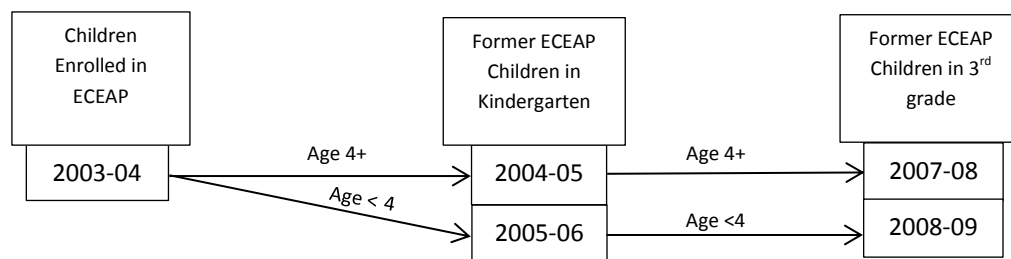
[3] Barnett, S.W, Yung, K, Youn, M & Frede, E.C, Executive Summary. *Abbott Preschool Program Longitudinal Effects Study: Fifth Grade Follow-Up.* National Institute for Early Education Research Rutgers University. March 20, 2013.

[4] Crosnoe, R., Augustine J.M., Huston A.C., Children's Early Child Care and Their Mothers' Later Involvement with Schools" Child Development March 2012. Published online 2012 February 7. doi: 10.1111/j.1467-8624.2011.01726.x

[5] Hawaii and Colorado are examples of states who have adopted the P-3 continuum - http://co.aft.org/files/article_assets/EC11A596-CAFD-B36B-93522852969942B3.pdf and http://p3hawaii.org/about-us/resources

This analysis focuses on:

- Describing children who participated in ECEAP in the 2003-04 program year and the linkage between these ECEAP children and K-12 information.
- Following ECEAP participants from kindergarten through 3rd grade to examine enrollment patterns, including grade level at first K-12 enrollment and a longitudinal analysis of K-12 enrollment through the 3rd grade.
- 3rd grade math and reading assessment scores for ECEAP children.
- The participation of ECEAP children in K-12 special programs, such as special education, the Learning Assistance Program (LAP), and eligibility for Free and Reduced Price Lunch (FRPL).

This analysis **should not be used** to evaluate the effectiveness of the ECEAP program, for the following reasons:

1. The ECEAP program that was in place in 2003-2004 is significantly different than the current ECEAP program. Prior to fall 2008, ECEAP had a minimum of 240 classroom hours a year and high family support caseloads. Beginning with 2008-09 program year, the hours were increased to 320 hours of direct education services per school year and family support caseloads were reduced to a maximum of 40 families per family support specialist. This is a significant change in the program dosage and quality that would need to be considered when performing an evaluation of the current ECEAP program.

2. To evaluate the impact of a program, ECEAP children would need to be compared to children who were similar on factors like family income and demographic characteristics, who did not participate in similar or more intensive comprehensive early childhood programs such as Head Start.

3. To evaluate ECEAP, we would also need to determine the dosage of ECEAP for individual children in the study. For example, we would not evaluate ECEAP's impact on a child who only attended for one day. For other ECEAP outcomes reporting, children who attended a minimum of six months are included. We would however, want to compare impacts on children who attended six months versus two years.

The following data sources were used to identify ECEAP children and follow them into the Washington public K-12 system:

1. DEL's ECEAP Management System (EMS) to identify ECEAP children and relevant

participation information, such as length of participation.

2. Washington public K-12 enrollment and assessment data from Washington State's OSPI.

- OSPI's Core Student Record System (CSRS) are used for enrollment information, including mobility, grade retention, and special education program participation.
- OSPI's Washington State Assessment of Learning (WASL) files and Measurement of Student Progress (MSP) are used to examine third-grade reading and math assessment scores.

What are the characteristics of Children who participated in ECEAP in 2003-2004?

Table 3: Description of ECEAP Children in the 2003-2004 Program Year
*Not all counts add to the total children due to missing data

ECEAP Children Information	2004 Program Year	
	ECEAP Children	%
Total Children	6,882	
Primary Language		
English	4,702	68%
Other	2,180	32%
Length of Time in ECEAP Program		
Less than or equal to 200 days	2,331	34%
201+ days	4,551	66%
Age		
<4	1,439	21%
4+	5,443	79%
Minority Status		
Minority Status	3,459	50%
White	3,429	50%
Resides with		
Both Parents	3,297	48%
Mother	2,792	41%
Father	153	2%
Grandparents	151	2%
Foster Care	150	2%
Other	339	5%
Homeless*		
Yes	86	1%
No	6,795	99%
Childcare*		
Yes	1,197	17%
No	5,682	83%

ECEAP and K-12 data linkage

Using names, dates of birth, and geography from the ECEAP and K-12 data, 87 percent of the 2003-2004 ECEAP children were linked to student records in Washington public K-12 between the 2004-2005 and 2011-2012 school years. It is unknown why 13 percent of ECEAP children do not link to Washington public K-12, but perhaps they did not enroll in Washington public K-12 or the child's information provided in the ECEAP or K-12 data was not adequate to find a linkage.

Table 4: 2004 ECEAP children and K12 Linkage

ECEAP Program year	ECEAP Children (# of children in DEL ECEAP file)	ECEAP Children Linked to K12	% Linked
2004 (2003-2004)	6,882	5,934	87%

The demographic characteristics of ECEAP children are compared to the demographic characteristics of ECEAP children who were linked to Washington public K-12 data. Table 5 shows that ECEAP children who are linked with K-12 are representative of the 2003-2004 ECEAP children.

Table 5: Comparison of 2004 ECEAP Children to 2004 ECEAP Children Linked to K12

ECEAP Children Information	ECEAP Children (# of children in ECEAP file)	Linked Children (# of ECEAP children linked to K12)	% ECEAP	% Linked
Primary Language				
English	4,702	4,000	68%	67%
Other	2,180	1,934	32%	33%
Length of Time in ECEAP Program				
Less than or equal to 200 days	2,331	1,917	34%	32%
201+ days	4,551	4,017	66%	68%
Age				
<4	1,439	1,194	21%	20%
4+	5,443	4,740	79%	80%
Minority Status				
Minority Status	3,459	3,005	50%	51%
White	3,429	2,929	50%	49%
Resides with				
Both Parents	3,297	2,870	48%	48%
Mother	2,792	2,436	41%	41%
Father	153	134	2%	2%
Grandparents	151	126	2%	2%
Foster Care	150	97	2%	2%
Other	339	291	5%	5%

Table 5 Continued				
ECEAP Children Information	ECEAP Children (# of children in ECEAP file)	Linked Children (# of ECEAP children linked to K12)	% ECEAP	% Linked
Homeless				
Yes	86	70	1%	1%
No	6,795	5,863	99%	99%
Participating in Childcare				
Yes	1,197	1,049	17%	18%
No	5,682	4,882	83%	82%
Receiving Food Stamps				
Yes	2,612	2,257	38%	38%
No	4,270	3,677	62%	62%
WIC				
Yes	3,800	3,288	55%	55%
No	3,082	2,646	45%	45%

Longitudinal Analysis of ECEAP Children's Enrollment from Kindergarten through 3rd Grade

Washington public K-12 enrollment patterns for children who participated in ECEAP in the 2003-2004 school year follow predictable patterns when the child's age is taken into account. Most children go from ECEAP directly to kindergarten and continuously enroll until 3rd grade. However, there are some children who have their first Washington public K-12 enrollment in later grades and others who may enroll at some point in Washington public K-12, but not enroll continuously through the 3rd grade.

When did ECEAP children first enroll in Washington Public K-12?

Table 6a: **First K12 Enrollment for Former ECEAP Children by Year and Grade**

Child Age	ECEAP Children	ECEAP Children Linked to K12	2004-05				2005-06				2006-07				2007-08				2008-2009			
K12 Grade Level			PK	K	1	2	3 PK	K	1	2	3 PK	K	1	2	3 PK	K	1	2	3 PK	K	1	2	3
age < 4	1,439	1,194	328	54	1		2	671	2			1	6	18				3	1			1	5
age 4 +	5,443	4,740	76	3,881	75			30	169			3	30				16	14				3
Total	6,882	5,934	404	3,935	76		2	701	171		1	6	21	30			19	15			1	8

Note: The counts in this table do not equal the total ECEAP Children linked to K12 because there were some children who had their first enrollment in grades higher than 3rd or in school years beyond 2008-09.

Sixty-six percent (3,935/5,934) of ECEAP children have their first K-12 enrollment in kindergarten in the year following their ECEAP enrollment. When kindergarten enrollment is examined by age group this percentage increases.

- Eighty-one percent (3,881/4,740) of children who participated in ECEAP in 2003-2004 and who were 4 years of age or older enroll directly in kindergarten in 2004-2005.
- Five percent (54/1,194) of children who participated in ECEAP in 2003-2004 and who

were less than 4 years of age enroll directly in kindergarten in 2004-2005, but 56 percent (671/1,194) first enrolled in kindergarten in 2005-2006.

Some ECEAP children had their first K-12 enrollment in Pre-Kindergarten (PK). Children who were less than 4 years of age during the 2003-2004 ECEAP program year would not be age-eligible for kindergarten and they would still meet the age requirements to enroll in ECEAP or other pre-school in the 2004-2005 school year.

- Two percent (76/4,740) of children who are 4 years of age or older are enrolled in PK in the year following their 2003-2004 ECEAP participation.
- Twenty-seven percent (328/1,194) of children who are less than 4 years of age are enrolled in PK in the year following their 2003-2004 ECEAP participation.

Twelve percent (701/5,934) of children who participated in ECEAP in 2003-2004 have their first K-12 enrollment in kindergarten in 2005-2006, which is two years following their ECEAP participation. Most of these children (96%) are less than 4 years of age at time of ECEAP participation, which means they would not be age-eligible for kindergarten until 2005-2006.

How many ECEAP children enrolled in Washington public K-12 by school year?

To answer this question, table 7 provides an annual snapshot of the number 2003-2004 ECEAP children who enrolled in K-12 in each year following their initial ECEAP program enrollment.

Table 7: Annual Snapshot of Grade Level of 2003-2004 ECEAP Children (Kindergarten through 3rd grade)

K12 Enrollment by School Year and Grade

Child Age	ECEAP Children	ECEAP Children Linked to K12	2004-05					2005-06					2006-07					2007-08					2008-2009				
K12 Grade Level			PK	K	1	2	3	PK	K	1	2	3	PK	K	1	2	3	PK	K	1	2	3	PK	K	1	2	3
age < 4	1,439	1,194	335	60	1			9	1,106	27			1	39	1,069	24			1	61	1,030	24			1	1	70	1,005
age 4 +	5,443	4,740	86	4,279	83			1	181	4,432	11				315	4,171	19				357	4,051					1	373
Total	6,882	5,934	473	4,542	88			13	1,392	4,661	12		1	47	1,489	4,388	19		1	70	1,497	4,267				1	80	1,459

Note: A child is counted only once within a school year, but the same children are not necessarily represented across the years.

The snapshot of each school year shows that the greatest number of ECEAP children enrolled in the expected grade level if there was a continuous progression through K-12. The majority of ECEAP participants who were less than 4 years of age during the 2003-2004 ECEAP program year enrolled in kindergarten a year later than the older ECEAP children because they would not have been age-eligible for kindergarten immediately preceding their participation in ECEAP.

- In 3rd grade, of the ECEAP children who could be linked to K-12, 85 percent (4,051/4,740) of the older children (age 4+) and 84 percent (1,005/1,194) of the younger children (age < 4) enroll in 3rd grade in the expected year.

This is not a longitudinal analysis of a child's progression through Washington public K-12 but it demonstrates the ability of P-20W cross-sector, longitudinal data to follow children across time

and sectors for research and reporting purposes.

How many ECEAP children went directly from ECEAP to kindergarten with <u>continuous enrollment</u> through 3rd grade in Washington public K-12?

Table 8: Longitudinal tracking of 2003-2004 ECEAP participants who enroll in Kindergarten when they become age-eligible

Age Group	ECEAP Children	Children Linked to K12	2004-2005		2005-2006		2006-2007		2007-2008		2008-2009	
K12 Grade Level			PK	K	K	1	1	2	2	3	3	4
age < 4	1,439	1,194	NA	NA	1,106		1,042		987		949	
age 4 +	5,443	4,740		3,881		3,848		3,588		3,492		
Total	6,837	5,934										

Table 8 shows that most 2003-2004 ECEAP children enrolled in kindergarten as soon as they were age-eligible and remained continuously enrolled without being retained through 3rd grade.

- 3,492 or 74 percent of the 2003-2004 ECEAP children who were age eligible for kindergarten in 2004-2005 (age 4+) went directly to kindergarten in the 2004-05 school year and stayed continuously enrolled without being retained through 3rd grade.
- 949 or 79 percent of the 2003-2004 ECEAP children who were eligible for kindergarten in 2005-2006 (age <4) entered kindergarten in 2005-2006 and stayed continuously enrolled without being retained through 3rd grade.

K-12 enrollment and outcomes for ECEAP children

How many former ECEAP children pass Washington public K-12 assessments in 3rd grade?

Of the 2003-2004 ECEAP children who took the assessments in 3rd grade, 58 percent passed reading and 54 percent passed math (Table 9). Students in 3rd grade either took the Washington Assessment of Student Learning (WASL) or the Measurement of Student Progress (MSP) depending on which year they were in 3rd grade. Both assessments are included in the analysis to ensure we have results for the greatest number of ECEAP children.

Table 9: K-12 3rd Grade Assessment Outcomes for 2003-2004 ECEAP Children

Age Group	ECEAP Children	ECEAP Children Linked to K12	# of ECEAP Children with 3rd Grade *Reading* Assessment	%	# of ECEAP Children who passed 3rd Grade *Reading* Assessment	%	# of ECEAP Children with 3rd Grade *Math* Assessment	%	# of ECEAP Children who passed 3rd Grade *Math* Assessment	%
age < 4	1,439	1,194	749	63%	469	63%	707	59%	395	56%
age 4 +	5,443	4,740	4,453	94%	2,548	57%	4,460	94%	2,410	54%
Total	*6,882*	*5,934*	*5,159*	*87%*	*2,996*	*58%*	*5,165*	*87%*	*2,804*	*54%*

From the OSPI Report Card website, the 2007-08 statewide pass rates on 3rd grade assessments for students eligible for Free and Reduced Price Lunch (FRPL) are 57 percent for reading and 55

percent for math.[6] ECEAP enrolls children up to 110 percent of federal poverty level (FPL); two-thirds of ECEAP children are from families with income below 80 Percent FPL. In contrast, USDA free lunch is available to families up to 130 percent FPL and reduced price lunch to families up to 185 percent FPL. Although the assessment pass rates for these two groups are similar, drawing conclusions about program effectiveness is not advised for the following reasons: 1) included in the statewide pass rates on 3rd grade assessments for students eligible for FRPL are students who receive ECEAP, Head Start, and possibly other early learning programs; and 2) the income criteria for FRPL and ECEAP are not comparable with ECEAP participants in a lower income category.

What is ECEAP children's school mobility once they enter Washington public K-12?

Table 10: K-12 School Mobility for 2003-2004 ECEAP children

Age Group	ECEAP Children	ECEAP Children Linked to K12	# of children who attended more than 1 school in K-3	%
age < 4	1,439	1,194	506	42%
age 4 +	5,443	4,740	3,848	81%
Total	*6,882*	*5,934*	*4,354*	*73%*

Seventy-three percent or 4,354 of the 2003-2004 ECEAP children attended more than one school between the grades of kindergarten and 3rd grade. When the school moves occurred was not analyzed for this report, but examining the timing (grade, time of year) of school moves would be useful in the future.

What is the participation of ECEAP children in special programs once they enter Washington public K-12?

Twenty percent or 1,159 of the 2003-2004 ECEAP children received Learning Assistance Program services sometime during kindergarten to 3rd grade; 18 percent or 768 participated in special education and 73 percent or 4,346 were eligible for Free and Reduced Price Lunch (FRPL). This is not surprising given the income eligibility requirements to access the ECEAP program.

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[6] http://reportcard.ospi.K-12.wa.us/WASLCurrent.aspx?schoolId=1&reportLevel=State&year=2008-09&gradeLevelId=3&groupLevel=District&waslCategory=18&chartType=1

Table 11: K12 Special Program Particiaption for 2003-2004 ECEAP Children								
Age Group	ECEAP Children	ECEAP Children Linked to K12	# of Children who participated in LAP	%	# of Children who participated in Special Ed	%	# of Children who were FRPL	%
age < 4	1,439	1,194	163	14%	168	14%	821	69%
age 4 +	5,443	4,740	996	21%	600	13%	3,525	74%
Total	*6,837*	*5,934*	*1,159*	*20%*	*768*	*18%*	*4,346*	*73%*

Data quality and completeness

As shown previously in Table 4, about 87 percent of the 2003-2004 ECEAP children were linked to K-12 data. Thirteen percent of ECEAP children were not linked possibly because families moved out of the state, children attended private school, or the child identifying information in the K-12 or early learning data was not adequate to identify a linkage. Table 5 shows that the ECEAP children who were linked to K-12 were not different demographically from the children who were not linked. Our ability to follow children is constrained by the data that is available and we do not have information to ascertain whether a family moves out of state or enrolls their child in private school.

Tables 7 and 8 provide information on our ability to follow ECEAP children as they progress through K-12.

- Table 7, which presents an annual snapshot of the number of ECEAP children, shows counts of ECEAP children in each grade level. This snapshot counts all ECEAP children who enroll in K-12 a specific year regardless of whether they were enrolled previously or in the future. These counts show the expected pattern if you assume most children progress from one year to the next and are not retained.
- Table 8 follows ECEAP children who enter kindergarten either in the school year immediately following ECEAP participation or as soon as they are age-eligible through the third grade. More than 70 percent of the children who enter kindergarten continuously enroll without being retained through the third grade.

Tables 4, 7 and 8 demonstrate that P-20 data is well-suited for following children across different sectors and time to examine their experiences and outcomes, but it also poses some challenges around which sector's information to use when they are not the same and what to do with characteristics that change over time, such as race/ethnicity or gender.

Examples of the decisions we employed for the purpose of this "first-look" analysis include:

- ECEAP race/ethnicity rolled up into two broad categories - "White" and "Non-White minority" –was used for this report because race/ethnicity was inconsistently coded across the ECEAP program data and K-12 data and also across time in the K-12 CSRS data. One approach to resolving these differences is to use the sector and time frame

the cohort was drawn from to determine which set of characteristics to use.

- Age was calculated using the date of birth in the ECEAP program data and using August 31, 2003. August 31 is used by ECEAP to determine eligibility for the ECEAP program. For ECEAP, a child who turns 4 on September 1 would be counted as a 3-year old in ECEAP and would not be eligible for kindergarten the following year. However, a child who turns 4 on August 31 would be eligible for kindergarten the next year.

Finally, it is always a process of discovery when using data for research or analysis when it has been collected for the purpose of administering a program. Taking a "first-look" at data, especially when it is being used to follow people and events across sectors and time, is essential to setting the stage for more in-depth analysis or evaluation studies. This "first-look" will assist Washington state in moving forward efforts to use early learning data to understand how to support children's success as they transition from early learning programs into Washington public K-12 and beyond.

Next Steps

1. ERDC will continue to work with the Department of Early Learning (DEL) and OSPI to compile, link, and analyze early childhood data, as it becomes available (refer to Table 2).

   - Data profile the ELMS, MERIT, FamLink, ESIT, and SSPS data that recently became available (see Table 2).
   - Integrate child-level data from ELMS and ESIT into identity matching process at ERDC.
   - Analyze linked early childhood data to meet project needs.

2. ERDC will provide a second Early Childhood report in March 2014 that integrates additional early childhood data from DEL.

3. ERDC will work with other state agencies and external data requestors to provide early childhood data to meet Washington state research and reporting needs. The following is a list of current requests for early childhood data:

   - Washington State Institute for Public Policy (WSIPP) to conduct an evaluation of the ECEAP program as specified in SB 5904.
   - The Community Center for Education Results (CCER) to integrate early childhood data into their analysis of outcomes for students participating in Road Map districts.
   - The Department of Social and Health Services (DSHS) to use in their research on educational outcomes of DSHS clients.

4. ERDC will work with the DEL, OSPI, and early learning providers to develop the structure and content of P20 reports for early learning providers. The process and resulting products will be similar to the P20 reports for high schools that were previously developed by ERDC.

If questions about this report, please contact

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